

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: February 29, 1996
Date Received: February 22, 1996
Project: 24 hr. Metro (ACW), PO #52384
Date Samples Extracted: February 23, 1996
Date Extracts Analyzed: February 26, 1996

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, AND ZINC
USING METHOD 6010**

Samples Processed Using Method 3005
Results Reported as $\mu\text{g/L}$ (ppb)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
	0.17	0.16	0.11	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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Project: 24 hr. Metro (ACW), PO #52384

**QUALITY ASSURANCE RESULTS
FOR CHROMIUM, COPPER, NICKEL, AND ZINC
Samples Processed Using Method 3005**

Laboratory Code: KE66682DU

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Relative Percent Difference</u>	<u>Acceptance Criteria</u>
Chromium	ug/L (ppb)	0.17	0.17	0	0-20
Copper	ug/L (ppb)	0.16	0.16	0	0-20
Nickel	ug/L (ppb)	0.11	0.10	10 a	0-20
Zinc	ug/L (ppb)	<0.05	<0.05	nm	0-20

Laboratory Code: KE66682MS/MSD

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>Sample Result</u>	<u>% Recovery</u>		<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
				<u>MS</u>	<u>MSD</u>		
Chromium	ug/L (ppb)	5	0.17	94	98	80-120	4
Copper	ug/L (ppb)	5	0.16	93	94	80-120	1
Nickel	ug/L (ppb)	10	0.11	96	99	80-120	3
Zinc	ug/L (ppb)	5	<0.05	95	99	80-120	4

Laboratory Code: Spike Blank

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>% Recovery</u>		<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
			<u>MS</u>	<u>MSD</u>		
Chromium	ug/L (ppb)	5	106	103	80-120	3
Copper	ug/L (ppb)	5	103	101	80-120	2
Nickel	ug/L (ppb)	10	107	103	80-120	4
Zinc	ug/L (ppb)	5	106	102	80-120	4

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

SAMPLE CHAIN OF CUSTODY

KNS AI
2-22-96
10:35

Send Report To: ALASKAN COPPER Contact Gerald Thompson
Company ALASKAN COPPER
Address 623 HANFORD ST.
City, State, Zip SEATTLE WA
Phone # 206 / 632-5800 Date _____

SITE NO.	PROJECT NAME	PURCHASE ORDER #
7238	24 hr Metro (ACU)	M 52384

SAMPLERS (signature)	PROJECT LOCATION
<i>Jonas Kolbel</i>	3200 6th Ave

REMARKS	SAMPLE DISPOSAL INFORMATION
	<input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input type="checkbox"/> Call for Instructions

Sample #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #	Analyses Requested
M 52384	2-22-95 10 ⁰⁰	H ₂ O	1	66682	Cr Cu Ni Zn
discharging					

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished: <i>Jonas Kolbel</i>	JAROSLAV KOLBEL	ALASKAN COPPER	2-22-96	10:35
Received by: <i>Cathy Downing</i>	Cathy Downing	FBI	2-22-96	10:35
Relinquished:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Andrew John Friedman
James E. Bruya, Ph.D.
(206) 285-8282

3012 16th Avenue West
Seattle, WA 98119-2029
FAX: (206) 283-5044

February 29, 1996

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

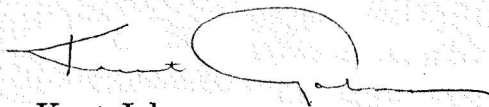
Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on February 22, 1996 from your 24 hr. Metro (ACW), PO #52384 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist

keh
Enclosures
FAX: 382-7335
ACU0229R.DOC

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February 29, 1996

INVOICE # 96ACU0229-1
DUPLICATE COPY

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project 24 hr. Metro (ACW), PO #52384: Results of testing requested by
Gerry Thompson, Project Manager for material submitted on February 22,
1996.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00